

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently amended): A communication link protocol for communicating between nodes of an interconnect system via ~~[[a]] communication link~~ links, the communication link protocol comprising:

a direct memory access (DMA) write command for writing a block of data from a local node to a remote node via one of the communication ~~link~~ links;

an administrative write command for writing data from a local node to registers in a remote node via one of the communication ~~link~~ links for administrative purposes;

a memory copy write command for writing a line of memory from a local node to a remote node via one of the communication ~~link~~ links when any data is written into that line of memory; and

a built in self test (BIST) command for testing the functionality of one of the communication ~~link~~ links.

Claim 2 (original): The communication link protocol of Claim 1 wherein each command is conveyed between a local node and a remote node in the form of a respective command packet.

Claim 3 (original): The communication link protocol of Claim 2 wherein each respective command packet carries information for at least one command flag.

Claim 4 (currently amended): A communication link protocol for communicating between nodes of an interconnect system via ~~[[a]] communication link~~ links, data and control information being transferred over the communication links in command packets and acknowledgment packets, the communication link protocol comprising:

a built in self test (BIST) communication issued from a local node to a remote node for testing hardware at the remote node via one of the communication ~~link~~ links; and

a link watchdog communication issued from the local node to the remote node for testing hardware software at the remote node via one of the communication link links; and
a response to the link watchdog communication that piggybacks in each acknowledgement packet issued by the remote node while the software at the remote node functions properly.

Claim 5 (original): The communication link protocol of Claim 4 wherein the ~~BIST communication is issued automatically~~ the response to the link watchdog communication comprises a flag in each acknowledgement packet issued by the remote node while the software at the remote node functions properly.

Claim 6 (original): The communication link protocol of Claim 4 wherein, if the hardware of the remote node is functioning properly, an acknowledge communication is returned from the remote node to the local node in response to the BIST communication.

Claim 7 to 9 (Canceled).

Claim 10 (New): The communication link protocol of Claim 1, wherein said writing a block of data from a local node to a remote node comprises copying the block of data from a local memory of the local node to a remote memory of the remote node.

Claim 11 (New): The communication link protocol of Claim 1, wherein said writing a block of data from a local node to a remote node comprises computing parity over multiple blocks of data from a local memory of the local node and writing the parity to a remote memory of the remote node.

Claim 12 (New): The communication link protocol of Claim 1, wherein said writing a line of memory from a local node to a remote node comprises reading existing data from the line of memory in a local memory of the local node, merging new data with the existing data, and writing merged data to a corresponding line of memory in a remote memory of the remote node.

Claim 13 (New): The communication link protocol of Claim 12, wherein said writing a line of memory from a local node to a remote node is devoid of any address mapping.